

a generator control operatively connected to the engine for controlling operation thereof and operatively connected to the generator for controlling the AC power generated thereby;

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a synchronizer operatively connected to a generator control, the synchronizer monitoring the magnitude and frequency of the AC voltage of the utility source and the magnitude and frequency of the AC voltage generated by the generator; and

a communications link for operatively connecting the generator control to a network; wherein the generator control varies the magnitude and frequency of the AC voltage generated by the generator to match the magnitude and frequency of the AC voltage of the utility source.

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3. (Amended) The control system of claim 1 further comprising a transfer switch having a first input connectable to the utility source for providing AC power, a second input operatively connected to the generator, and an output connectable to an alternate load, the transfer switch is selectively movable between a first position connecting the utility source to the alternate load and a second position connecting the generator to the alternate load.

Cancel claims 5 and 6.

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7. (Amended) The control system of claim 1 further comprising a switch operatively connected to the generator control and being movable between a first closed position for interconnecting the generator and the load and a second open position, the generator control moving the switch to the closed position in response to the magnitude and frequency of the AC voltage generated by the generator being generally equal to the magnitude and frequency of the AC voltage provided by the utility source.

13. (Amended) A generator structure for generating AC power for a load, the load including a utility source which provides AC power having a magnitude and power factor and AC voltage having a magnitude and frequency, comprising:

a generator connectable to the load, the generator generating AC power having a magnitude and a power factor and AC voltage having a magnitude and a frequency;

an engine operatively connected to the generator for driving the generator, the engine having an adjustable engine speed;

a generator control operatively connected to the engine for controlling operation thereof and operatively connected to the generator for controlling the AC power generated thereby,

the generator control including a synchronizer for monitoring the magnitude and frequency of the AC voltage provided by the utility source and the magnitude and frequency of the AC voltage generated by the generator such that the generator control varies the magnitude and frequency of the AC voltage generated by the generator to match the magnitude and frequency of the AC voltage of the utility source; and

a communications link for operatively connecting the generator control to a network.

14. (Amended) The generator structure of claim 13 further comprising a transfer switch having a first input connectable to a utility source for providing AC power, a second input operatively connected to the generator, and an output connectable to an alternate load, the transfer switch selectively movable between a first position for connecting the utility source to the alternate load and a second position for connecting the generator to the alternate load.

Cancel claims 16 and 17.

18. (Amended) The generator structure of claim 13 wherein the generator control includes a volt-ampere-reactive (VAR) control for varying the power factor of the AC power generated by the generator.

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19. (Amended) The generator structure of claim 13 further comprising a switch operatively connected to the generator control and being movable between a first closed position wherein the generator is connected to the utility source and a second open position, the generator control moving the switch to the closed position in response to the magnitude and frequency of the AC voltage generated by the generator being generally equal to the magnitude and frequency of the AC voltage provided by the utility source.

23. (Amended) A method of providing AC power to a load, the load including a utility source which provides AC power having a magnitude and a power factor and an AC voltage having a magnitudes and a frequency, comprising the steps of:

setting various operating parameters for a generator structure and transmitting the same to the generator structure over a network; and

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generating AC power and AC voltage with a generator structure in response to the various operating parameters set, the AC power having a magnitude and a power factor and the AC voltage having a magnitude and a frequency;

monitoring the magnitude and the frequency of the AC voltage provided by the utility source and the magnitude and the frequency of the AC voltage generated by the generator structure;

varying the magnitude and the frequency of the AC voltage generated by the generator structure to match the magnitude and the frequency of the AC voltage provided by the utility source, and

interconnecting the generator structure to the utility source in response to the magnitude and the frequency of the AC voltage generated by the generator structure being generally equal to the magnitude and the frequency of the AC voltage provided by the utility source.

Cancel claims 24-26.